THE GENESEE FARMER.

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N. GOODSELL, EDITOR.

AMERICAN AGRICULTURE.

In Agriculture as in the Arts, the American people borrowed many of their original ideas from England. These were introduced partly by the first settlers of our country; and since that time, the direct intercourse, which with few obstructions has been maintained with the mother country, has enabled us to avail ourselves of whatever improvements they have made in either. It is but justice to acknowledge that in the infancy of our government, and before the different arts had found, or formed for themselves the proper channels wherein to move, that England maintained a superiority over us; but of late years, the depressed state of her Agriculture, which has been over burthened by worse than useless taxes, and the comparative freedom which has accompanied our own, has accelerated the march of improvement in agriculture in America, until it may be said without the implication of boasting, that for a general course of agriculture, we are not second to any nation in the world. By this we wish to be understood that the two kinds of property, *land* and *labor*, employed in agriculture in America, give as great a per centage of profit as that of any other country. If this is correct, then it is time for us to respect ourselves that we may be respected by others.

In order to support this position, some reasonable cause for our progress over that of England should be assigned.

1st. The unnecessary burthen of taxes imposed upon the English Agriculturist, acts as a premium to stimulate our own, when the different situations are brought in comparison. In England much of the land is subject to tithes, which is a certain proportion of the crop, whether this crop is more or less. This goes directly to prevent the improvements in crops, by manuring which is found so beneficial in our country. In England as in this country, there is much land in a reduced state, which by the common course of ploughing, and planting with potatoes, would give only small crops; but there, as here, potatoes is made a preparatory crop, and the manure which is to act on the succeeding ones, is worked in with the potatoes. The following table published in Lancaster (England) in 1812, will give a clear view of the subject, showing at once the discouragement and loss accompanying what we should call a proper course of tillage for a crop of potatoes; whereas, a small profit might accompany a course diametrically opposite.

Expenses in cultivating one acre of Potatoes.

45 tons of manure, (being the smallest quantity used)	£29 5 0
Carting five or six miles at 5*s.* 6*d.* per ton,	12 7 6
Filling and carting to drills when used, at 6*d.* per ton,	1 2 6
Ploughing, harrowing and preparing land,	4 12 0
Sets, cutting and planting,	2 12 0
Ploughing and weeding twice,	3 3 6
Rent of land,	6 00 0
Getting up 300 bushels at 3*d.* per bushel,	3 15 0
Farmer's expense,	£61 17 6
300 bushels is a general crop, though there is more under than over, at 2*s.* per bushel from off the field,	30 00 0
Farmer's loss with the smallest quantity of manure used,	£31 17 6
Or	$141 47

Now if we deduct the tithes, or one tenth from the produce of the acre, it will leave a balance against the farmer of $154 79, to be gained by the following crops, or lost as the case may be — Surely this is enough to discourage the agricultural class of community of any country.

Loudon in his Encyclopædia of Agriculture gives the following "*as an example* of the payments made by a farmer in England, whose rent is annually £500."

Tithes are compounded for, at	£100 00 0
Poor assesments is 5*s.* on the pound	125 00 0
Church assessment,	6 5 0
Highway assessment,	13 10 0
House tax and window tax,	10 00 0
Horse tax and dog tax,	7 10 0
Stamped receipts for these and other payments,	1 15 0
The whole are very nearly 53 per cent, or	£264 00 0

In addition to these he enumerates various other taxes, direct and indirect, which he denominates "*burdens*," to which our farmers would add "*not to be borne*," one of which he speaks of thus: "*Adstriction to mills*, however, is the severest burden where it exists; for not only is the expense of grinding double or treble what ought to be exacted, but the farmer is bound to carry his grain to be manufactured by a person, in whose skill or honesty he cannot always place dependence."

Now the argument to be drawn from these facts is, that as we have greater encouragements there will be greater improvements in Agriculture in America than in England: and as these circumstances have existed for many years, it is doubtful whether we are in the leas tbehind them at this day.

SKINLESS OATS.

"Is there *any* thing whereof it may be said, See, this is new?—It hath been already of old time, which was before us."

In the 29th Number of the Farmer, vol. 1, at page 227, we published an account of the Skinless Oats having been introduced into Ireland, the year past, from the interior of China.—From the accounts we have seen we were led to believe that they were the first ever raised in that kingdom, and so stated the case. Since that time, in looking over some old English works, we have found them so accurately described as leaves not a doubt but they were once cultivated to a considerable extent in England, and as they have long since discontinued cultivating them as a field crop, the inference is that they were not found so profitable as the common variety.

The first description we find of these oats, is in the "*Historie of Plants*," published by John Gerard, in 1597, which we insert together with that of common oats.

Of Otes.

1st. *Avena Vesca*, common Otes, is called *Vesca, a Vescando*, because it is used in many countries to make sundry sorts of bread, as in Lancashire, where it is their chiefest bread corne for Jannocks, Haver-cakes, Thraff cakes, and those which are called gennerally oten cakes; and for the most part they call the graine Haver, whereof they do likewise make drinke for want of Barley.

2d. *Avena Nuda* is like unto the common Otes, differing in that, that these naked Otes immediately as they be threshed without help of a mill become oatmeal fit for our use. In consideration whereof in Northfolke and Southfolke they are called unhulled or naked Otes. Some of those good housewives that delight not to have any thing but from hand to mouth, according to our English proverb, may (while the pot doth seeth) go to the barne and rub forth with their hands sufficient for the present time, not willing to provide for to-morrow, according as the scripture speaketh, but let the next day bring it forth."

Parkinson in his "*Theater of Plants*," published in London in 1640, at page 1134, gives the following description of *Oats* then cultivated in England. The term *manured* is used by him to designate cultivated varieties of plants from wild ones.

Avena. *Oates.*

1st. "There are only two sorts of Oates that may justly challenge any place among the Graines, or Cornes, which are the ordinary sowen field Oates, and the naked Oates, for the wild Oates are most truly reckned among the Grasses."

1st. Avena Vesca. *Manured Oates.*

"The ordinary Oates groweth up with divers tall jointed stalks, and leaves somewhat resembling Wheate, bearing at the toppes a large spread tuft of many pointed aglets hanging downe like small winged birds, from small thread-like stalkes, within every one of which huskes lyeth a small and long round graine somewhat like unto Rie, but longer and more pointed, the roote is small and thready.

2d. Avena Nuda. *Naked Oates.*

The naked Oates grow in all points like the former saving that the graine being somewhat smaller and whiter, lyeth not so fast enclosed in the huskes, but is very easily rubbed out with one's hand."

The Place and Time.

They are both sowen in our fields in sundry places, yet the naked Oates nothing so frequent, and doe love rather a moist cold ground than either hot or dry, and are usually the first seede is sowen upon these grounds that were woods and stocked up, they are summer comes, that is, sowen in the Spring and mowen in Autumne.

The Names.

It is called in Latine *Avena*,—but I am no

Pythagorian to believe, *transmigratio animarum*, nor of *Theophrastus* or of *Pliny* his beleefe, that Oates are made of *Zea* as *Theophrastus* saith, or that Barly is changed into Oates as Pliny saith; but it is wonderfull, that so great learned men in naturall Philosophie should be carried away with such strange and erronious opinions: but these and many more the like were too frequent with most of the old writers as is plaineley seene in many places of their workes. For howsoever there is a *lusus naturæ* many times, and in many things and plants, as by over abundance, or by defect or lacke of just parts, yet that any one transmutation of one *species* in plants should be into another, I never saw, nor can believe any can shew, naturally so growing other than cassually as before said, unlesse as God of stones can make bread, and of water wine, it come miraculously, which if it should so happen supernaturally it must not be accounted any law or course in nature; but of this enough here, I have spoken else where more to this effect. All authors that have written of these two graines doe so little vary their titles of them, that they may easily be knowne: the *Arabians* call it *Chartall*, the *Italians Vena*, the *Spaniards Avena* and *Avea*, the *French Avoine*, the *Germanes Haborn*, the *Dutch Haver*, and we in *English* Oates and Haver also."

Several years since, there was introduced into this country a variety of wheat with many heads, or rather, with several branches from the main one: it was called *many headed wheat*, and was said to have been brought from some part of Asia. Some farmers were induced to pay great prices for small parcels of it, with the expectation of increasing their crops materially; but in this they were disappointed, and we are not aware that it is cultivated at all with us at this time. About the same time there was also a new kind of Barley distributed to our farmers, or rather, a variety with which they were not acquainted: this, if we mistake not, was called *Egyptian Wheat, Speltz, Naked Barley, &c.*, but like the many headed wheat did not answer the expectations, and we have not seen it in our markets for several years. These are both figured and described in Gerard, and other old writers, and the circumstance that they have gone out of cultivation in other countries where they have been introduced, should be an argument against their profit in our own.

Farmers should not allow themselves to be led away with the idea that the march of improvement is such that all old customs and plants are to be rejected to make way for new ones, but they should reflect that "there is no new thing under the sun," that what is now "hath been already of old time;" and that one of the greatest advantages resulting to Agriculturists at this time, is from the general diffusion of information on subjects connected with it, whereby practical farmers may avoid experiments which have already been tried and found useless, and adopt those which promise to be more profitable, all local circumstances considered.

SHEEP.

No part of the stock of a farm requires more particular attention than sheep. Open winters are counted the most favorable for them, and why? because in open winters on most farms, they are allowed to ramble about the fields, feeding upon grasses and such plants as remain green during the winter, which has a tendency to keep their bodies more open than when fed altogether upon dry hay. Slovenly and careless farmers often let their flocks of sheep suffer during severe winters, for want of proper laxative food, without which they become costive and feverish, which, beside other injuries, has a direct tendency to render the wool cotted, or as they generally term it, hide bound, which very much reduces it in value for manufacturing purposes. This may be avoided by a proper attention to the food of the animals, without materially increasing the prime cost of it. Almost any kind of green food is good for that purpose, as cabbage, turnips, potatoes, carrots, pumpkins; also boiled grains, as rye, wheat, oats or Indian corn, bran, oilcake, &c.—By a little attention of this kind to sheep during severe weather, not only the *quality* but *quantity* of wool is increased; and by it also the ewes will be in a better condition for yeaning, will give more milk, and the lambs will have more strength at first, and will grow better afterwards. It often happens that during the last of January and fore part of Eebruary, some ewes bring forth lambs: these, if well attended to, will always command a high price for the market as firstlings, and after they are a week or ten days old, seem as hardy as old sheep. It is a very common opinion that sheep do not require water during the winter, or when snow is on the ground; and therefore, they are frequently shut in pens and fields where they are entirely excluded from it. It is true if they can not get water they will eat snow, but when within their reach, they will be found to drink as readily as other parts of the stock — *Winter is the time to increase the number and quality of your flock of sheep.*

FOWLS.

It should be remembered by those who keep fowls, that they will not do well when fed upon whole dry grains unless they have plenty of gravel stones: these should be supplied them as regularly as any part of their food. Again, if they are shut in close pens, they should be supplied with lime in some shape, otherwise they will lay eggs with soft shells. Where they can be had pounded clam or oyster shells should be given them; where these are not convenient, rubbish from old walls or lime mortar will answer, or pounded lime stone mixed with the gravel stone. As to the breeds of the common barn fowl, it is somewhat a matter of fancy: and if we go upon the principle that a small fowl only consumes food in proportion to its size compared with a large one, it does not appear so material only as regards the shape, proportion and color which render them more valuable when dressed. So far as our observations have extended, we think a mixture of about from one eighth to one quarter of the Malay breed with the common dung hill fowl, gives as fair proportions and color as any brought to our market: with these proportions the color is uniformly brownish yellow, with yellow legs and skin, which is preferred by most people in this country, Sir Wm. Curtiss's opinion to the contrary, notwithstanding, to those with black legs, the size good, and flesh fine; whereas the Malay breed when pure are long legged, and rather coarse in the flesh, and the young are more tender and difficult to raise, which may be owing to their nudity, as they are not covered with feathers as early as the common breed.

Capons.—We will make the inquiry through our paper whether any person in the States has practiced rearing *Capons* for their own table, or for market, and if so, would be glad to receive from them an account of the advantages or disadvantages of the practice, to lay the same before our readers.

"Notes on Erie County."—We have received from our correspondent Ulmus, at Buffalo, his notes on Erie County, which we shall publish in our next number; and we hope the gentlemen named in his former communication, and others in the different counties of the State, will enable us to give the desired descriptions of every county in the state.

If Ulmus will furnish the plans alluded to in his communication published to-day, we will endeavor to provide the necessary cuts.

Maple Sugar.—As sugar making on many farms is a matter of economy, those who intend making should remember that the coldest weather is often succeded by a thaw, and that sugar which is early made is finer in quality than that which is made later; therefore their apparatus should be in order to avail themselves of the first run of sap.

Cider Barrels.—Where cider is drank in families, the empty barrels should be rinsed with a little lime water, and the bungs put in tight, and all vent holes stopped before they become sour or musty, which will be the case if left unstopped through the summer, as *fine cider* is never drank from *bad casks*.

Cows.—In Loudon's Statistics of Agriculture of Buckinghamshire, under the head of *Live Stock*, is the following: "Cattle kept chiefly for beef and butter, seldom for cheese or work.—Hereford oxen preferred, and next the Devon, Holderness cows for the dairy: some prefer the long horned Lancaster, and others the Suffolk.—Quantity of butter made, six pounds per cow per week, at an average, when in good keep, and not nearly dry." We doubt not but some of our Yankee dairies will produce an equal quantity.

SILK WORMS.

Dr. Pascalis of New-York, a gentleman who has done much to promote the cultivation of silk in our country, has given notice that he has just received from an eminent naturalist and culturist in France, a quantity of silk worms of two kinds, —one producing a fine white silk, and the other nankeen yellow cocoons. He concludes his notice:

Desirous to propagate these precious distinct sorts throughout the country, I will make parcels of 500 or 1000 seeds, wrapped in cotton and inclose them in a letter, one or two sorts, as may be wished. The least even will produce three ounces of seed. Orders, postage paid, and covering $1 or $2 to defray the labor of a distributing clerk, shall receive immediate attention.

FELIX PASCALIS.

January 25, 1832. 71 Liberty-st. N. Y.

Silk.—We notice that the inhabitants of the town of Poughkeepsie intend applying to the Legislature of New-York, for the incorporation of a company, with a capital of thirty thousand dollars, to be employed in the cultivation of silk.

THE WINTER.

The variable state of the weather since our last synopsis, (Jan. 16, page 10,) requires a passing notice. The thaw and freshet that commenced about the 12th ultimo, and in less than a week left the ground bare, and soon after cleared the Genesee of ice, rolled away and dissolved the pyramids below the falls, and gave to nature the aspect of coming spring. On the 25th, however, we had again good sleighing, and a diminishing of temperature, which on the evening of the 26th had lowered to 4° below zero, and at 6 A. M. of the 27th stood at 6° below. The rise during the day (last Friday) was but 12° or six above zero. The cold was extreme until the evening of the 1st Feb. when a change in the direction of the wind, from N. W. to S. in a few hours well nigh obviated the necessity for fires. The snow wasted fast, and by the evening of the 2d, the ground again appeared quite bare. The sudden and great changes in our temperature resemble it very much to the sea coast where from 6 inches to one foot of snow is wasted in 24 hours. The thermometer during the day (yesterday 2d,) stood at 52° and a cloudy atmosphere all day.

METEOROLOGICAL TABLE,

FOR JANUARY—1832.

Days.	10 A. M. therm.	10 A. M. barom-eter.	10 A. M. winds	10 A. M. sky	10 P. M. therm	10 P. M. barom-eter.	10 P. M. winds	10 P. M. sky
1	26	29,45	w	cloudy	20	29,50	w	cloudy *
2	24	29,66	w	do	20	29,38	s E	do †
3	27	29,50	w	do	18	29,80	w	fair
4	14	29,75	E	fair	26	29,50	E	cloudy
5	34	29,45	s w	cloudy	33	29,50	w	do ‡
6	37	29,25	s w	do	28	29,60	w	do ‖
7	30	29,75	w	do *	22	29,65	s w	fair
8	30	29,45	E	do	34	29,00	E	rain 5-10
9	33	29,08	w	rain †	30	29,20	w	cloudy
10	34	29,15	s w	cloudy	28	29,25	w	cl'y
11	25	29,18	N w	do ‡	20	29,45	w	cl'y §
12	22	29,60	w	fair	22	29,50	w	fair
13	38	29,54	w	do ‖	31	29,65	w	do
14	14	29,78	w	do §	38	29,78	s w	do
15	16	29,80	w	do	36	29,80	s w	do **
16	40	29,80	s w	do **	34	29,70	w	do ††
17	40	29,60	s w	do	43	29,45	w	ra 2-10 ‡‡
18	48	29,40	s w	do	46	29,20	s	cloudy ‖‖
19	40	29,40	w	do hw	35	29,64	w	do
20	35	29,65	w	cloudy	32	29,55	w	do §§
21	34	29,58	w	do ††	22	29,80	w	fair
22	30	29,90	w	fair	20	29,85	w	fair
23	28	29,75	s w	do	32	29,50	w	c'dy h w
24	36	29,35	s	cloudy	20	29,55	w	do snowy
25	09	29,65	w	do ‡‡	06	29,65	N w	do ***
26	06	29,75	w	fair ‖‖	−4	29,80	N w	fair
27	04	29,80	w	do §§	01	29,85	w	do †††
28	12	29,75	s w	cl'y	14	29,70	s w	cly snow
29	14	29,80	N E	do ***	13	29,70	E	do ‡‡‡
30	18	29,40	N E	cl'y †††	16	29,40	w	cly
31	24	29,55	w	cl'y	18	29,75	w	do

*Snow 2 inches. †Rain 1-10, h. w. ‡Snow ½ in ‖Thaws fast. §Tempe 48° at 2 p. m. **Spring water 39°. ††Snow 1 in ‡‡Snow 2 inch. ‖‖Temp. sunrise 2° below zero.—§§Ditto at 6 a. m. 6° below ***Snow 3 inch. †††Do. 6 inches.

*Fine sleighing. †Snow 3 in. ‡do. ½ in. ‖thaws 40° 2 p m. §snow ½ in. **Poor sleighing. ††tem. 50° 2 clk. ‡‡ No sleighing. ‖‖rain 1-10. §§Gen river clear ice. ***snow 1 in. good sleighing.—†††tem. 2 p m 6° ab. ze. ‡‡‡snow 1 inch.

Means—Thermometer 26–45. Barometer 29,56. Mean of extremes 22°.

CORRECTION.—The note at the bottom of the Table for December, should read 6 degrees *above* zero, instead of 6 degrees below.

From the Kennebec Journal

MONEY APPLIED BY THIS STATE

To benefit the Agricultural interest, the best method of enriching the State.

Other countries and States, with much less land, and not so deeply interested in the welfare of agriculture, have appropriated large sums to the benefit of the farming interest, and are satisfied that the money has been applied to the best purpose. Great Britain has long had her agricultural societies aided by the government, and it is doubted whether any part of Europe is dest ute.

Massachusetts now applies the sum of two hundred dollars yearly to each of her counties (if I am rightly informed, to aid her county societies and we all know she has a very extensive State society, and has had for many years; and lately a horticultural society is doing much, and Maine has in many cases felt the benefit of their labors in twenty years. The Nova Scotia government have aided a very active society in that province, and I have furnished one choice animal for them. Before the establishment of that society, they imported bread to a large amount, which importation they say, has much lessened. Some of the reports of that society have been rich in agricultural matter; they have shown the absurdity of a country situated so far to the north as they are, where they are obliged to fodder seven months in a year, being obliged to sell butcher's meat and purchase breadstuff; they have shown that the cost of raising a hundred of meat is three times that of a hundred of breadstuff; and yet the meat does not exceed the breadstuff but little in the market. We have yet to learn why all other places are so much benefited by agricultural societies, and are not an object worthy to receive the least legislative aid. Can it be that this State has neglected their true interest? Experience has shown that *small* premiums are best; but without *any* it is not believed that one hundred and thirteen bushels of good sound corn would have been raised from one acre of ground in the town of Winthrop this year. The information that is obtained from a society cannot be obtained from an individual, nor is the influence in society as great in the one case as in the other. Witness the good done by Temperance Societies of late.

I believe that man labors under a mistake who thinks that we in Maine are situated too far to the north for a good farming country, if the farmer had information and industry to put it into execution. Teach our youth that we are so situated, and that our soil is indifferent, and they will be sighing after a softer air, and more luxuriant soil; but teach them the contrary, and they will be contented here. A sum sufficient to keep many agricultural societies actively pursuing their object would not be felt in any considerable degree, but the benefit would soon be perceived, and I should hope, acknowledged by every one. A small sum yearly would be sufficient, and much better than a large one at any one time. Can there be any class of people in this state so ignorant of their true interest as to suppose they are not interested in agriculture? In states where they have but little seaboard, there is no difficulty in making the legislatures believe it to be their true interest to patronize agricultural societies. Is it because we have three hundred miles of sea-board that our legislature has not aided those societies?

If domestic animals are improved; if one hundred bushels of corn are raised where only forty were before the existence of such societies; if domestic and family expenses are lessened; if the people throughout the state are rendered more temperate and industrious, will any man say the state is not enriched thereby? and would not these societies have such a tendency? Commerce and the arts are cultivated by all wise nations; if they are extended too far they beget their evils Ought we not as a people to do all in our power to elevate the standard of agriculture to its proper level? and can it be better done in any other way than by encouraging agricultural societies? I would call the attention of all elected to the next legislature to the subject, let their profession or party feeling be what they may. I am satisfied the subject has been too long neglected. There is nothing that the ingenuity of man may not raise arguments against, & state abuses of power that never existed. Experience alone can test what premiums are necessary to do good; and the great object of all trustees ought and will be to do good. What other objects can they have? I might state such objections as I have heard made, and ingenuity can make more, but I forbear.

A FARMER.

Winthrop, Nov. 1, 1831.

BROOM CORN IN HADLEY.

We have received from an authentic source, an estimate of the amount of Broom Corn raised in the town of Hadley: the crop for the year 1831 is estimated at 150 tons, and it has averaged for the last ten years, at 125 tons, the whole of which has been manufactured into brooms in that town. The labor of one man four months it is supposed will cultivate about six acres and harvest the same, and the average produce of one acre is about six hundred pounds; one pound of brush is allowed for a broom this year, but in former years something less, and one hand will manufacture five tons of brush, if constantly employed, in a year. The entire cost of a broom is *nine* cents, the component parts being one pound of brush at five cents, tying on, two and a half cents, handle, one and a quarter cents, and wire, twine &c. one quarter of a cent. The crop this year is unusually large, and consequently the price is diminished, selling at an average of about 5 cents, giving about $15,000 for the crop of brush aloue. It is somewhat difficult to ascertain the exact amount, but from the forgoing it must be supposed, to say the least, that Hadley furnishes a handsome supply of this useful domestic implement. The value of the crop of brush and seed, raised in Hadley this year, taken collectively, is estimated at $21,750.—*Northhampton Cour.*

THE GRAZIER'S GUIDE.—Messrs. Cary & Hunt, Philadelphia have published a small volume that we should think would be most acceptable, as it certainly must be highly useful, to every person rearing or owning cattle of any kind. It is a book of directions for the proper rearing of animals, the value of the various breeds, the cures of their different distempers, or the construction of proper houses for them. The recipes and general directions for treating diseased animals are simple and practical, and we hope that so much information, to be easily obtained, will benefit the class of citizens for whose good the work was compiled. The work is entitled "Farmer's and Grazier's Guide," by B. LAWRENCE.—*U. S. Gazette.*

COMMUNICATIONS.

FOR THE GENESEE FARMER.

FARM BUILDINGS.

Nothing adds more to the beauty, to the economical management of the farm, or to the comfort of its inhabitants, and the pofitable condition of its domestic animals, than good buildings. By this I do not mean costly or showy erections, but far otherwise: just large enough for the wants of the farm, and on the most economical plan consistent with permanent durability. Although there are very many excellent and expensive dwellings scattered throughout our fine agricultural country, our farm buildings are generally deficient in that appearance of snugness and durability that is consistent with the true character of a well ordered farm. In most cases the houses are too high and large; hence many of them contain open unfinished rooms, that in a few years require expensive repairs, or else soon give a shattered uncomfortable aspect to the whole dwelling; cause much useless domestic labor, and require an immense annual consumption of fuel at great expense of comfort and thrift.

In a climate subject to long cold winters like ours, warmth and convenience are the chief requisites in a dwelling; those should always be of the first importance to the consideration of him who is about to build. To these should be added as much durability as possible; and to him who chooses to employ his means in the addition of ornament and display, no objection need be made. The material ought always to be of stone or brick if it can be obtained, as being warmer and more durable than wood. A warm and sheltered situation, gently sloping to the sun, should always be selected, if convenient, to the road, for the buildings of the farm. For ordinary purposes a dwelling of one or one and a half stories high is sufficient; and to this should be attached on the windward side, a wood house, carriage or waggon house, and necessary out buildings for the dwelling establishment. A well stoned cellar should be laid under the whole body of the house, sufficiently deep to keep vegetables without banking, which is ruinous to sills if built of wood, and always unsightly. The dimensions ought to compare with the size of the farm and family. The barn & shed for the stock, should not be far from the house, and on ground inclining from it, that the wash may run in the contrary direction on to the fields adjoining. If the barn could be built on a gentle slope so as to give an under ground front to it, so much the better; a warm sunny yard for cattle is of great importance. The convenience also of storing turnips, pumpkins, &c. under the barn, is of much advantage; and the manure, too, from the stable, if kept under cover, preserves all those valuable gasses for the enriching of crops, that are otherwise given off to the atmosphere when exposed to the open air in sun and storms. Convenient wing sheds ought always to be provided for cattle when the circumstances of the farmer will admit. Every dollar judiciously expended in sheds and ricks is economically invested, as no cattle thrive so well, and winter on so little food, as those provided with warm and comfortable shelter. If a running stream be not near the yard, and a spring cannot be brought in logs, a well should be dug close at hand, that the stock can always have a plentiful supply of clear water; as nothing is more necessary to their health. The labor of attending them is also much less, and thus affords more time to the other occupations of the farm. If the house be furnished with a good cooking stove in the kitchen, and a couple of good Franklins in the sitting rooms, much expense of time, labor and valuable wood will be saved, certainly not less than 50 per cent. which in the article of fuel is quite an item, if in nothing but the cutting; for let wood be ever so plenty, I never knew any one who cared to cut and haul it for the mere fun of it.

If it be objected that this style of building is too plain and destitute of ornament, I reply, that as much beauty of proportion and ornament in finish can be adopted as is desirable; and that the utility of any building need never detract from the beauty of it; and to the eye of one possessed of correct taste, nothing can appear more delightful than a well cultivated farm, with its low, snug, convenient buildings near the road side; a clean pretty garden close by, and a fine thrifty orchard in the back ground, together with a few vigorous forest trees throwing their pleasant shadows over the quiet porch of the house. Such associations give an air of comfort, plenty, and repose, that is sought in vain on looking over the bald and cheerless tenements of those who are regardless of rule or order in fixing their habitations, and that too without incurring a dollar of extra expense.

If you can use cuts in your paper, I may perhaps, when more at leisure, submit you a few plans for buildings on the farm, which may be viewed not without profit to those who are about erecting buildings on their farms; and to such I can say, that a trifling attention to the plan of a house or out building in the erection, may save a vast amount of inconvenience in after life. ULMUS.

FOR THE GENESEE FARMER.

THE CATALPA, VINES, &c.

Ulmus is respectfully informed that the summers of the Genesee country are warm enough fully to develop the flowers of the *Catalpa*. I have a tree about fifteen feet in height, which has annually assumed as much beauty and magnificence as any of its size and kind that I have ever seen in the vicinity of Philadelphia.

For four years after my *Sweet Water* and *Black Orleans* were planted, the fruit was free from mildew; and I had begun to cherish the hope that the blight which discouraged my neighbors, would never approach this locality. The fifth year undeceived me. No *exotic* variety in my garden has escaped, and I have not had one undamaged bunch of grapes in two years, except some that were preserved by extraordinary means.

In speaking of the *Isabella* grape, ULMUS says, "That it is a native of our country, of original stock, I do not believe, as all the indigenous grapes that I have ever yet seen, possess the same acid, hard pulp, and thick leathery skin of the ordinary fox or bullet grape." I have drawn a different conclusion; and I wish to submit the following arguments to the consideration of that intelligent horticulturist:

In 1829, no species of *Vitis* had been introduced into Britain, besides the *Vitis vinifera*, and those from North America, except two tropical species: and it is entirely improbable that any other nation in Europe, had done more in this line than the British. No skilful botanist will believe that the *Isabella* is a variety of *Vitis vinifera*; nor that its native locality is within the tropics, for it is *hardier* than any European variety. Now if these things are so, then the question may be put: where could *Vernet* have procured this grape? Those who are aware of the great number of remarkable *varieties* or *species* of the vine which have been discovered in the United States within a short period, may be easily prepared to believe it one of this number.

I would not call the fox grape (*V. labrusca,*) *acid*; neither do I consider the *Isabella* exempt from a *leathery skin*; nor that our indigenous grapes have much uniformity of character in regard to *acid, pulp*, or *thickness* of the skin. I regret that I have not been able to procure *Prince's Treatise on the Vine*, where I would hope to find full descriptions; but another work from the same quarter, furnishes the following evidence: "Scuppernong. The grape is—*very sweet*.—The Spring Mill Constantia is *sweet* without any *musky flavor*.—Missouri Seedling. The fruit is as *sweet* as the Meunier.—Muncy. The fruit is *sweeter* than many native grapes.—Elsingburg. It is *very sweet*—free from *pulp* or *musky taste*.—It is undoubtedly a native, all the characteristics of which it bears—the fruit approximates nearer to the Meunier of France than any American grape.—Raisin du Cote. Fruit somewhat pulpy—*extremely sweet*, and *not musky*.—Columbia. It has not the peculiar scent which the Fox grape possesses—it is *quite sweet*."

ULMUS will perceive of the foregoing, *seven* kinds, decidedly American, *none are acid*; that *four* kinds have *no musky flavor*; and that one kind has *no pulp*, to which class I think the Bland, and perhaps some others, might be added.

A PRACTICAL GARDENER.

FOR THE GENESEE FARMER.

EFFECTS OF THE GENERAL CULTURE OF THE GRAPE.

Some remarks on the probable effects that the general culture of grapes may have on the temperance of the inhabitants of this country, contained in the 48th No. of the Genesee Farmer, have suggested a few further observations.

It is well observed that those countries which abound with wine, have the least intemperance. As far as my knowledge extends this is a truth; and I think it may be adduced as a corresponding fact, that those persons whose brazen throats enjoy with zest the burning stimulation of ardent spirits, and who indulge in frequent inebriation, have little relish for the gently exhilerating qualities of choice wines; and it is also observable that such have but little relish for the finest fruits. They have wantonly destroyed the primitive taste for the sweets of nature, and substituted an insatiable thirst which nothing will allay, and which hurries them to a giddy stupefaction of every natural or refined sense. Hence it is evident that the fermented liquors are not the element of the drunkard. It may be urged by some, that the drunkard will use them to excess in the absence of his favorite beverage, which I will readily admit; but where is the drunkard that has become so by the use of fermented liquors alone? I have not known an instance of this kind, and I believe such instances will rarely if ever occur, except where the inducement to drink is spurred on

by a convivial association, or something of this kind. The insatiable thirst of the drunkard is implanted by the use of a stronger stimulus, and a stomach, not thus vitiated, will not readily sacrifice reason in support of excess, except when reason is paralyzed by some other means.

Perhaps it will be said that we are better without wine, and that water even is the most healthy beverage. I shall not contend with such a position: perhaps it may be so; but the same objection will weigh with equal force against at least half the articles of our daily food. Our tables are crowded with luxuries which are less conducive to health than more simple food; but whether we shall retain or reject these is not my present inquiry. An excess of food is perhaps as common as an excess of wine, and where popular customs favor excessive indulgence, reason too often slackens the rein to headlong appetite. Many have gradually slid into a habit of intemperate drinking from courtesy in submitting to popular custom, rather than from a love of drink; hence is manifest the importance of getting popular custom on the side of virtue. This has been in part attained by the influence of temperance societies, and where drinking was formerly thought consistent with social etiquette, it is now frowned out of countenance by a substantial reformation of manners founded on the basis both of reason and principle. This is as it should be; let this reform go on—let popular custom be more and more enlisted on the side of virtue, and let every practice, tending to excess of drink, be dragged, unmasked, into public view, and exposed to deserved censure. However guarded from reprehension by the connivance, or even by the practice of some men of the fairest character, let every such practice be stripped of its false coloring; and if any man shall accuse the hand that dares to make such an attempt, of violating his sanctuary, so be it; I shall prove all such sactuaries unholy.

Drinking toasts is a practice of this kind, which I would recommend to examination. The time has been, when the human mind, for want of the light of science that now illuminates the intellectual horizon, was trammeled with a belief in magical incantations, and a secret influence was supposed to be exerted on distant persons and things by means that are now viewed as the work of ignorance, superstition or folly; and yet some of those practices are still retained, although a belief in their efficacy is gone by. Children still hang up their stockings at Christmas to receive the bounties of St. Nicholas or Santiclaus, and men still dedicate wine to the health or benefit of a distant friend, and swallow it themselves. If this is not a dereliction of common sense, it is at the least an insult on the party toasted. If present, and treated in the same manner as absent, men, even of the most obtuse sensibility, would keenly feel the tantalizing jest when a cordial glass is prepared for them and applied to other stomachs. But perhaps it will be said that the wine is intended to awaken the feelings of friendship or patriotism, which are otherwise rather sluggish, or to elicit the expression of noble sentiments in witty sayings, that would otherwise sleep in the bosom, or only appear in common sense talk. I would rather have one friend that is so in his sober senses, than ten who are made so by wine: nay, I would rather have the wine that it would require to make them, than a score of such friends; and as for wit, I would much rather have common sense expressions of feeling, than the most highly touched strains of eloquence that are the effects of the fumes of wine floating in the head, and which comes not near the heart.

The best reasons that can be given for the drinking of toasts, are absolute objections to the practice. It promotes garrulous and senseless hilarity to the exclusion of rational enjoyment, and the excess of wine it induces is likely to become the prelude to the insatiable thirst of the drunkard. So far as this practice is encouraged, so far is popular custom on the side of vice, and so far will wine be an evil to the community.

The cultivation of grapes has been commenced with ardor, and there is the highest probability of its successful prosecution; many, if not most of the foreign varieties, will be abandoned, and such kinds chosen as will remunerate the culivator with a plentiful supply of the choicest and most healthful fruit; and as a few years bring them into full bearing, the time is probably not not very distant, when a portion of the fruit may be profitably converted into the choicest wine. This used by plain men in a plain common sense way, will make an important item in the already numerous catalogue of our home prepared luxuries; and when substituted for ardent spirits, its effects will be salutary on morals and manners.

Linden Hill, 12 *mo.* 20. S. C.

FOR THE GENESEE FARMER.

WINTER BIRDS—No. III.

The Tree Sparrow.—On New-Year's morning we were visited by a small flock—perhaps two or three dozen—of these birds. They were very sprightly, lighting on shrubs, or on bare spots on the ground whence the snow had been swept by the wind; and were industriously searching for food.

I believe this is the only species of sparrow to be found in the Genesee country in winter. Even the snow-bird,* so appropriately named, and so familiar to every child below the mountains in Pennsylvania, deserts us at this dreary season.

The history of the tree sparrow by Wilson, is brief. The following paragraph contains all that would probably interest the general reader:

"This sparrow is a native of the north, who takes up his winter quarters in Pennsylvania, and most of the northern states, as well as several of the southern ones. He arrives here about the beginning of November; and leaves us again early in April; associates in flocks with the snow-birds, frequents sheltered hollows, thickets and hedge-rows, near springs of water; and has a low warbling note, scarcely audible at the distance of twenty or thirty yards. If disturbed, it takes to trees like the white throated sparrow, but contrary to the habit of most of the others, who are rather inclined to dive into thickets.

"Pennant informs us that it inhabits the country bordering on Hudson's Bay during summer; comes to Severn settlement in May; advances to the north to breed; and returns in autumn on its way southward. It also visits Newfoundland."

Greatfield, 1 *mo.* 23, 1832. D. T.

Our last "Saturday Bulletin" informs that "petitions have been presented in Congress to abolish all newspaper postage." I should be very willing to *second that motion* if I had the power. An intelligent Englishman of my acquaintance who has lately arrived in this country, assures me that no charge is made in the English Post Offices for newspapers; and that he regularly exchanged papers by mail with one of his friends in a distant town without any expense whatever.

N.

[☞ So far from no charge being made for newspaper postage in England, all papers upon which have not been paid *fourpence* sterling stamp duty, are charged the same as *letter* postage.]

*Not the snow-bunting, but *Fringilla hudsonia*.

FOR THE GENESEE FARMER.

STOCKING FISH PONDS.

Mr. Goodsell—It has been asserted that fish, if properly managed, may be restored to life after having been frozen hard a long time; that in this condition they may be conveyed a great distance with impunity; be then restored to life and animation perfectly, and when again placed in their element, will propagate and do well.—This assertion, if true, should be made a public declaration for the benefit of all the lovers of trout and salmon in the new countries bordering on the Mississippi and the great western Lakes. The Michigan is said to include in its boundaries a great number of small silver lakes, many of which are fed by springs, and appear not to communicate with the larger lakes. These are supplied but imperfectly with fish; and no trout have been taken at all that we can learn. These lakes, if well stocked and protected, would, in less than ten years, contribute not a little to the many inducements to emigration.

Fish may be taken at all seasons when they abound, and it is well known that trout and many fine varieties are taken in the immediate vicinity of Rochester. The Irondequoit and Allen's creek, and many smaller streams, furnish trout in abundance. All the bays and inlets on the borders of Ontario, contain pike, pickerel and bass in great quantities, and some of the finest we ever saw are now in our market. As the dissemination of useful knowledge has always been your motto, please to state what you know in relation to this subject.

Piscinarius.

SINGULAR CIRCUMSTANCE.

Mr. Goodsell—The following curious particulars were communicated to me by Mr. Avery, a gentleman of this village, and supposing the circumstance to be rather an anomaly in the common routine of nature, you will, if you please, insert.

Mr. A.'s brother, a short time since, in felling a large *button wood* tree, at or near Hanford's Landing, discovered growing in the hollow of the tree, at the apparent altitude of eighty feet, two gooseberry bushes, very thrifty, and about three feet in height, the roots enclosed in decayed matter, probably leaves, &c. decomposed. He has re-planted them to observe what varieties they may prove to be.

The seeds were doubtless deposited there by birds, as we think old Boreas could have had no agency in this *alliance*. At all events, the *liaison* is an obliquity, and the "match," however fructiferous it might prove, is but an "ill assorted" one. The poet says:

——"How will the rose agree
With the dead hyacinth!—or the honey woodbine,
Circling a withered briar." P.

M't. Pleasant, Ohio, 1st Mo. 17th, 1832

FRIEND L. TUCKER—Thou wilt find enclosed the subscription money for the second volume of the "Genesee Farmer," and thinking that some of the readers of it might feel an interest in comparing the Meteorogical tables published therein, with one from this state, I take the liberty to forward mine for part of the present month. If consistent with the views of the Editor to publish it, a short topographical account of the part of the country, where it was registered, may perhaps be acceptable.

M't. Pleasant is situated on a ridge of land lying nearly east and west, between the two branches of short Creek, the larger of which is about one mile to the north, and the smaller two to the south of it. It is about 55 miles south-west of Pittsburgh, 10 north-west of Wheeling, and 7 from the Ohio river. The country for many miles round is hilly, the hills generally rising about 450 feet above the level of the large streams of water in the vicinity, and about 1100* above the Atlantic Ocean. J. GIBBONS.

*I obtain this altitude by comparing the mean of my Barometrical observations with those made near the level of the sea; and although I am aware that this method is not to be depended upon as perfectly accurat , I believe it does not vary far from the truth.

METEOROLOGICAL TABLE,
FROM JANUARY 1, TO 16, 1832,
Kept at Mount Pleasant, (Ohio.)

Days.	therm.	barom-eter.	winds.	sky.	therm.	barom-eter.	winds.	sky.
1	20	28,50	s	cloudy *	17	28,60	s w	clear
2	20	28,68	s	cloudy	35	28,45	s w	snow ‖
3	24	28,78	w	cloudy	21	28,81	w	clear
4	18	28,72	s E	cloudy †	36	28,63	s w	cloudy
5	31	28,63	s w	snow	36	28,55	s w	rain
6	41	28,45	s w	rain ‡	33	28,60	N w	cloudy
7	29	28,70	N E	cloudy	31	28,65	N	cloudy
8	34	28,48	N E	rain	37	28,16	s	cloudy
9	32	28,35	w	rain, sno	30	28,43	w	clear
10	31	28,36	s w	cloudy	29	28,40	s w	flying §
11	23	28,42	w	fly'g clou	21	28,60	N w	clear
12	19	28,70	s w	clear	28	28,68	s w	clear
13	32	28,78	s w	clear	37	28,84	s w	clear
14	37	29,00	s w	clear	40	29,00	s	clear
15	31	29,00	s w	clear	39	28,91	N E	clear
16	33	8,88	s E	clear	40	28,76	s E	clear

Means—Thermometer 30. Barometer 28,64.

* 7 inches snow on the ground. † Occasional glimpses of the sun. ‡ Snow nearly gone.—‖ and rain. § Clouds.

From Silliman's Journal, for Jan. 1832.

SUGAR FROM POTATOE STARCH.

BY S. GUTHRIE.

Mr. Editor.—From the accounts of making sugar from potatoe starch, to be found in most of the recent works on chemistry, I was led to believe that in remote inland districts, where the potatoe grows abundantly, potatoe sugar might be made advantageously, both to the population of the district, and to the manufacturer himself. Under this impression, about sixteen months ago, I proposed to my friend Capt. E. G. Potter, of this place, to make a trial of it, and on such a scale as should ascertain the practicability of obtaining sugar from potatoe starch, of a quality fitted for domestic purposes, and likewise the probable remuneration to be derived from conducting it as a business. To this proposition he assented, and engaged in it with all the zeal and ability which were required for its successful completion.

A series of experiments was commenced at my laboratory, which were followed up by him, in buildings erected for the purpose, during the ten succeeding months, in which time, the starch was extracted from about four thousand bushels of potatoes, and converted into sugar.

I am not aware that experiments on this subject, to any considerable extent have been made by others, either in this or in any country; the object of this paper therefore is to communicate, on this curious and interesting subject, such information as was acquired in the prosecution of the business, that the subject may be more fully understood, and that those who may be inclined to engage in it, may have, in advance, the advantages to be derived from an extensive experience of others.

The first experiment that succeeded was made in a glass bottle of one gallon capacity. The starch, water, and acid, in the usual proportions, were put together into the bottle, and the bottle placed in a sand bath. In order to insure a boiling heat, within the bottle, of about 230° Fahrenheit, a valve was fitted to its nozzle, and loaded with seven pounds to the square inch. On applying the necessary heat, in three hours the whole starch was converted into a sweet, fine flavored syrup, and eventually by neutralizing the acid, and by evaporization, into a rich, fine flavored sugar, or rather molasses; for, neither in this experiment nor in any subsequent one did the product, when pure, exhibit the slightest tendency to crystallize.

In a subsequent trial the bottle exploded; and as sulphuric acid, largely diluted with water, was supposed to have very little, if any action on lead, a strong leaden vessel of seven or eight gallons capacity, capable of sustaining a pressure of ten pounds to the square inch, was fitted up for future operations. Many experiments were made with this vessel, all of which failed of giving a product that was not more or less contaminated with lead, and therefore unfit for use.—The sugar made in this vessel had the property, especially when much charged with lead, of crystallizing into a firm, tough, white mass, with minute indistinct crystals, acquiring weight by absorbing water of crystallization from the atmosphere, and uniformly bursting the earthen vessels in which it had been crystallized. The conversion of the starch to sugar was always completed in about three hours. When the heat was continued eight or ten hours, the sugar was much more contaminated with lead, and crystallized more promptly, but acquired, from the continuance of the heat, no increase of saccharine properties.

After a sufficient number of experiments had taught the way, the following apparatus, and mode of working were adopted, and, as it appeared, seemed scarcely to require, or be suceptible of improvement.

For grinding the potatoes, the following very ingenious and efficient contrivance was devised, and executed by Capt. Potter. He obtained a true, smooth cylinder of hard wood, two feet long, and one foot in diameter, provided with gudgeons and a whirl.—The face of this cylinder was covered, by winding and nailing upon it long strips of sheet iron, *about two inches wide*, punched full of holes, so as to give them a strong, rough, grater surface. This cylinder or grater was so hung, as to constitute the anterior side of the box or hopper, and made to revolve very near the anterior edge of its bottom, being driven by a and from the drum of a waterwheel. On filling the hopper with potatoes, and giving to the grater the necessary motion, the potatoes were reduced with surprising rapidity to a fine pummice, from which, by the aid of a seive and water, the starch, in great purity, was readily obtained. This apparatus ground three thousand five hundred bushels of potatoes, without requiring the least repair, and apparently was capable of grinding one thousand bushels more without impairing its efficiency.

The next step, in the operation, was to convert the starch into sugar. For this purpose a strong wooden vessel was formed, capable of sustaining a pressure of ten pounds to the square inch, and of the capacity of four hundred gallons. This vessel was charged with two hundred and twenty-five gallons of water, being the necessary quantity for dissolving six hundred pounds of wet starch, equal to three hundred and seventy pounds of dry starch, the amount commonly converted at each operation. A team pipe from a strong sheet iron boiler, was continued to the bottom of the tub or converter, and the steam let into it until the water had acquired a temperature nearly sufficient for dissolving the starch,—say 158°. A part of the water was then drawn off, and mixed with the starch, when the whole was poured into the converter, and constantly agitated, until, by the agitation and the increase of heat, the whole of the starch was dissolved. Four pounds of sulphuric acid had been mixed with the water in the converter, before the starch was added to it. The aperture, through which the starch had been introduced and agitated, was then closed. A throttle valve within the steam pipe *was loaded with ten pounds to the square inch*, and a safety valve upon the converter *was loaded with five pounds*. The steam was then driven into the converter, until the whole of the starch was converted into sugar, which usually required five or six hours. This point was ascertained at first, by the test of iodine added to a little of the product, drawn occasionally from the converter; but, by a little experience, it was readily and accurately ascertained by the flavor alone; as, before it became fully converted, it had a raw, disagreeable flavor, which entirely subsided on that event, and gave place to one sweet and pleasant.

The syrup was then drawn, whilst yet hot, into receivers, and the acid neutralized by adding caustic lime, and the point of neutralization ascertained by test paper or red cabbage, but better by the taste, and the syrup was then left to settle its impurities. It was remarked that less time was required to neutralize the acid, when used whilst the syrup was yet hot, and that the impurities settled more promptly and completely, leaving a more transparent and beautiful syrup.

The boiler was composed of a sheet of copper, seven feet and a half long, by four feet and a half broad, made of sheets of sixteen ounce copper, tinned upon the side intended for the upper one, tacked and soldered together, and nailed upon a wooden frame, six inches deep, of the same dimensions, divided into two partitions by a strip of plank crossing its centre. This vessel was set over an arch, and when adjusted, it was scarcely possible to desire a more cheap and useful instrument for the purpose for which it was designed.

With the above apparatus, about thirty gallons of sugar, or product, weighing nearly twelve pounds to the gallon, were completed from the starch and put up for market each day.

All the authorities I have seen speak only of crystallized sugar derived from starch, and the reader would expect to see his product crystallize as a thing of course; but I suspect few of them have taken the trouble to ascertain whether it will crystallize or not. Careful evaporation, carried to every possible degree of consistence, has been ineffectually tried. Crystals of mucovado and loaf sugar have been thrown into it, and have lain in it for months without acquiring any accession of size: and unless the sugar be contaminated with lead, I suspect it will be made to crystallize with difficulty, if at all.

A bushel of potatoes weighs about 60 lbs, & gives 8 lbs. of pure, fine, dry starch. This amount of starch will make five pints of sugar, of the weight of nearly twelve pounds to the gallon, equal to seven pounds and a half to the bushel of potatoes, or a little less than a pound of sugar to the pound of starch. The sugar is not as sweet as the muscovado sugar nor is it actually as sweet as its taste, would indicate.

This sugar may be used for all kinds of domestic purposes. It ferments with great liveliness and spirit, when made into beer, yielding a healthful and delicious beverage, and on distillation, a fine cider brandy flavored spirit. It would however be most useful in making sweetmeats, and may be used upon the table in lieu of honey, for which it is a good substitute. It has already become a favorite with most people who have become acquainted with it. Its taste is that of a delicious sweet, and as an article of diet is unquestionably *more healthful, and less oppressive to the stomach than any other sweet ever used.**

Sacket's Harbor, July, 1831.

From the New-England Farmer.

FEEDING CATTLE, CALVES, &c.

"In young growing animals the powers of digestion are so great, that they require food which is less rich, than such as are of mature age. They also require more exercise. If rich food is supplied in liberal quantities, and exercise withheld, diseases are generated, the first of which may be excessive fatness: growth is impeded by very rich food, for experience shows, that the coarsest fed animals have the largest bones. Common sense will suggest the propriety of preferring a medium course between very rich and very poor nutriment."—*Loudon.*

Regularity of feeding cattle is of prime importance. Three times a day precisely at a certain hour, cattle, according to Mr. Lawrence, should be furnished with their food. Mr. Dean observed, that neat cattle and horses should not have so much laid before them at once as will quite serve to fill them. The hay they have breathed on much, they will not eat up clean, unless they are very hungry. It is best, therefore, to fodder them twice at night, and twice in the morning. Let neat cattle as well as horses have both light and fresh air let in upon their fodder when the weather is not too cold and stormy to allow the windows to be open. What one sort of cattle leave should be thrown to another sort. Those that chew the cud will eat the leavings of those that do not, and *vice versa.*

"*Oil cakes,*" says the *Farmer's Guide*, "are of great use for feeding cows before calving. Flax-seed broth or jelly is much recommended for fatting. It is made by putting about a quart of flax-seed to seven of water, and then let it stand about forty-eight hours; after which it is to be boiled gently for two hours, stirring it frequently to prevent its burning. When cool, it is to be mixed with meal, bran, or cut straw, and fed out at the rate of about two quarts a day to each beast and it is said to make a great saving in the article of food. It is also useful for fattening calves."

Mr. Young says, "I have for some time entertained an idea, that skimmed milk might be prepared with proper ingredients, effectually to answer the purpose of feeding calves when the practice is to give new milk from the cow, and at about a third of the expense. The articles are treacle, [molasses] and the common linseed oil-cake, ground very fine, almost to an impalpable powder, and the quantities so small that, to make thirty-two gallons, would cost no more, exclusive of the milk, than about sixpence. It mixes very readily and almost intimately with the milk, making it more rich and mucilaginous, without giving it any disagreeable taste. Take one gallon of skimmed milk, and in about a pint of it add half an ounce of common treacle, stirring it till well mixed; then take one ounce of linseed oil-cake, finely pulverised, and with the hand let it fall gradually in very small quantities into the milk, stirring it in the mean time with a spoon or ladle, until it be thoroughly incorporated; then let the mixture be put into the other part of the milk; and the whole made nearly as warm as new milk from the cow. After a time, the quantity of oil-cake may be increased."

From Irving's Works.

RURAL LIFE IN ENGLAND.

The taste of the English in the cultivation of the land, and in what is termed landscape gardening, is unrivalled. Nothing can be more imposing than their park scenery.—But what most delights me is the creative talent with which the English decorate the unostentatious abodes of middle life. The rudest habitation the most unpromising and scanty portion of land, in the hands of an Englishman of taste, becomes a little paradise. The residence of people of fortune and refinement in the country has diffused a degree of taste and elegance in rural economy, that descends to the lowest class. The very laborer, with his thatched cottage and narrow slip of ground, attends to their embellishment. The trim hedge, the grass plot before the door, the little flower bed bordered with snug box, the woodbine trained up against the wall, and hanging in blossoms about the lattice; the pot of flowers in the window; the holly providentially planted about the house, to cheat winter of its dreariness, and throw in a gleam of green summer to cheer the fireside;—all these bespeak the influence of taste, flowing down from high sources, and pervading the lowest levels of the public mind. If ever lover, as poets sing, delights to visit a cottage, it must be the cottage of an English peasant. The proneness of rural life among the higher classes, has had a salutary effect upon the national character. I do not know a finer race of men than the English gentlemen. Instead of the softness and effeminacy which characterize the men of rank in some countries, they exhibit a union of elegance and strength, a robustness of frame and freshness of complexion, which I am inclined to attribute to their living so much in the open air, and pursuing so eagerly the invigorating recreations of the country.

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From the Schoharrie Republican.

BALL'S CAVE.

This interesting cavern has of late received some attention, as well for its novelty and extent as for the variety and elegance of the mineralogical specimens with which it has enriched the cabinets of the learned and curious. A cavity in the earth, in the form of an inverted hollow cone, of about twelve feet descent, reaching to an irregular perpendicular fissure in a stratum of lime rock, of about ten feet in length and six feet in breadth, on the land of Mr. Ball, situated about four miles and a half north east of the Court House, had attracted the notice of the owner of the land, but no attempts had been made to explore the regions connected with this upper world by this aperture until the month of September last, when a party of gentlemen from this village, consisting of JOHN GEBHARD, Esq. who has been successfully engaged in collecting a cabinet of minerals, accompanied by Mr. HUBBARD and Mr. BRANCH, made arrangements to examine the extent of this subterranean opening, for the purpose of ascertaining whether it concealed in its hidden recesses any minerals which, either for their rarity or elegance, might be rendered a valuable acquisition to their cabinets. Upon arriving at the place, and after having cleared away, with considerable labor, the logs and rubbish, which had been thrown in for the purpose of closing the apperture, Mr. HUBBARD first made the preparation to try the somewhat perilous descent. As the rock on either side presented a uniform perpendicular surface, with the exception of a few slight projections, the descent could only be effected by fastening a rope around his body, and letting him down suspended at its extremity. In this manner he descended a distance of seventy-five feet, where the perpendicular descent was

* The use of a bottle (one fifth of a gallon) in my family, fully supports Mr. Guthrie's statement.

interrupted and inclined to the south down a rocky and precipitous declivity. In this position he disengaged himself from the rope, and waited until he was joined by Mr. BRANCH. These gentlemen here prepared their lights for continuing the investigation. They proceeded first to explore an ascending opening in the rock to the north, which proved merely a narrow passage expanding to some ten feet in width, and about twenty in length, but which is entitled to some notice, for containing masses of arragonite, which for the variety of its formation and the size and beauty of its chrystals, is perhaps unequalled by any in this country. Having ascertained that the cavern extended no farther in this direction, they returned by the passage through which they entered, and commenced descending cautiously the declivity to the south, at an angle of at least sixty degrees with the horizon, through a passage varying in width from four to ten feet. They proceeded in this direction about fifty-five feet, when the descent became perpendicular, having ascertained by the assistance of their lights that the perpendicular descent was only about 15 feet. They managed, by the aid of some projections in the rock, to descend. They then proceeded, at the same inclination as before, about 30 feet, when they arrived at the bottom. The opening here is only about ten feet in width, but of great height. On the westward side, they discovered a small stream of pure and limpid water, which run in a southerly direction. Pursuing the course of this stream through an arched way so low that they were unable to stand erect, they proceeded about twenty feet, when, turning to the left around a sharp angle in the rock, they entered a passage of just sufficient width to admit a man of ordinary size, and found themselves in an apartment of about twenty feet in diameter, and more than an hundred feet in height. The effect, upon enterning this apartment, is in a high degree imposing.—The stupendous walls of solid rock, rising in majestic grandeur to such a vast height, encrusted on all sides with transparent chrystals formed by the dripping of the water through the interstices of the roof, and the pearly drops suspended at the extremity of the innumerable stalactites pendant from the roof and the projections in the sides, reflecting the blaze of the torches, resemble a thousand sparkling gems; and the human voice, resounding through the various passages in the cavern, and reverberated by the numerous angles and projections in the rocks, sounds as if the spirits of the deep were echoing the words in mockery of this unwonted intrusion upon their silent domain. A narrow passage, ascending to the east from this room, has since been explored about thirty feet.—Subsequent visitors have also found in this room the skeleton of some animal, probably of a fox, which, having fallen into the cave without being killed by the fall, must have perished with hunger in the place where its bones were discovered. Leaving the apartment, our adventurers again pursued the course of the stream through a passage varying in width from eight to ten feet, about the distance of twenty-eight feet, where their progress was arrested by a body of water into which the brook flowed, and which extended quite across the cavern. Having no means of ascertaining the extent of this miniature lake, and having repeatedly attempted to toss a pebble across, and as often ascertained their failure by listening to its sullen plunge in the water, they proceeded to collect some fine specimens from the mineralogica treasures of the cavern, and were drawn up to the light of day, after having occasioned, by their long abscence, considerable uneasiness to their friends on the surface.

The result of this expedition excited very considerable interest with the gentlemen of the vicinity, and Doct. Joel Foster, who is also collecting a cabinet of minerals, had made repeated visits to this laboratory of nature, which promises to furnish the means, in some degree, of very splendidly illustrating one department of natural science. But no successful attempts at farther discovery had been made, until the 21st of October when Mr. Gebhard, Mr. Bonny and Doct. Foster, having constructed a boat, made preparations, in company with several other gentlemen, to navigate the waters of this lower world. The boat was let down by a rope, and transferred to the margin of the water, and launched and named "Bonny's Barge," in honor of its spirited projector, in due form. Fixing a light upon the prow, our subterranean mariners, without a compass, a chart or star to direct their course, commenced their voyage of discovery. They entered upon their navigation through an arched passage in the rock, of a perfectly regular and smooth surface, and so low as not to admit of their standing erect in the boat. They proceeded in a southerly direction about 50 feet, when they altered their course to the left around an angle in the rocky passage, and found themselves in water some thirty feet in depth, and so limpid that the smallest object might be discerned by torch light on the bottom. Pursuing their voyage, and varying their course to the right or left, as the water wound around several angles in the arched passage, which gradually expanded to about twenty feet in width, and ascended in some places to a height which could not be ascertained by the light of their torches, and in others approached to within a few feet of the water, they proceeded the distance of about three hundred feet, when they arrived at a rugged shelving ascent on the right shore of the lake, and under which its waters appeared to be lost. Advancing up the ascent about twenty feet, they entered an aperture in the rock directly in front, of about the size of an ordinary entrance to a house, when a scene grand beyond description, burst upon the view. They advanced thro' this opening into a vast amphitheatre, hitherto untrod by mortal foot, which, from its perfectly regular and circular form, obtained at once the name of the Rotunda. Upon giving this department a particular examination, after the first feelings of surprise had subsided, they found it about one hundred feet in diameter, and apparently more than a hundred feet in height, regular in its form, the floor descended on all sides gradually to the centre, and forming a spacious gallery around its whole circumference, and enclosed above by a perfectly level horizontal roof. The vast size of this aperture; the magnificence of the gigantic walls and fretted roof, both entirely encrusted with transparent chrystals, which sent back the blaze of the torches in a thousand different dyes, at once satisfied the beholders, that they had penetrated into the very temple in these hitherto unexplored realms of eternal night. Indeed, the effect was nearly allied to enchantment; it required no great stretch of the imagination to realize the legends of the "water nymphs in their coral caves," and suppose this to be the gala chamber of this subterranean palace, on which the grottos of the deep, and the recesses of the mine, had bestowed their pearly treasures, and adorned its ponderous walls for the reception of the nymphs from the tiny lake, to celebrate their midnight revels. On either side, may be observed a low browed opening, four in number, nearly opposite, which fancy might represent as connecting suits of state apartments and dormitories with this lordly dome. The passage opening to the south, has since been explored a distance of more than two hundred feet, which could be effected a considerable part of the way only by crawling on the hands and knees. The other passages were also entered, but nothing of interest discovered. Our adventurers, after having by the sudden intrusion of light, aroused from their slumbers, myriads of bats, that hanging in clusters from the walls, were quietly dozing away the hours of sunshine, and that now commenced flying about the cavern, making by the motion of their wings, a hollow sound like that of distant thunder;—and after having explored an opening on the side of the water opposite the rotunda, narrow but of vast height, freighted their little vessel with a rich cargo of mineralogical curiosities, and returned to the upper world, highly delighted with the success of their voyage. The cavern has subsequently been subjected to a more particular examination, by John Gebhard, jr. esq. of this village, who has been at the trouble of drawing diagrams representing both its horizontal and perpendicular appearnce and dimensions. But whatever curiosity its novelty may in general excite, its elegant mineralogical specimens are more particularly a subject of interest to the philosopher; and in this respect, though many caverns have been explored, surpassing it in magnitude, yet but few in the splendor of its ornaments. Both stalactites and stalagmites of the purest white alabaster, from three to eighteen inches in length, from one to seven inches in diameter, having been procured from its walls. Also, fine specimens of pearl spar and satin spar, as well as concretions of semi trasparent chrystals of almost every imaginable form and variety. Indeed, nature, in decorating her rocky palace, has lavished her ornaments with a wildness and profusion, which laughs to very scorn the proudest works of human genius. She had not built her walls of straw burnt bricks, or bricks of polished marble; both will crumble and disappear beneath time's corroding footsteps. But she has hewn her temple from the imperishable rock, where she has held for centuries her undisputed sway, and reveled in all the wantonness of majestic architecture and fantastic decoration.